

Chapter 20

Summary of MSDP Configuration Statements

The following sections explain each of the MSDP configuration statements. The statements are organized alphabetically.

disable

Syntax	disable;
Hierarchy Level	[edit protocols msdp], [edit protocols msdp group <i>group-name</i>], [edit protocols msdp group <i>group-name</i> peer <i>address</i>], [edit protocols msdp peer <i>address</i>]
Description	Explicitly disable MSDP.
Usage Guidelines	See “Disable MSDP” on page 179.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

export

Syntax	export [<i>policy-name</i>];
Hierarchy Level	[edit protocols msdp], [edit protocols msdp group <i>group-name</i>], [edit protocols msdp group <i>group-name</i> peer <i>address</i>], [edit protocols msdp peer <i>address</i>]
Description	Apply one or more policies to routes being exported from the routing table into MSDP.
Options	<i>policy-names</i> —Name of one or more policies.
Usage Guidelines	See “Configure MSDP Routing Policy” on page 176.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.
See Also	import on page 185

group

Syntax `group group-name {`
 `disable;`
 `export [policy-name];`
 `import [policy-name];`
 `local-address address;`
 `mode (mesh-group|standard)`
 `traceoptions {`
 `file name <replace> <size size> <files number> <no-stamp>`
 `<(world-readable | no-world-readable)>;`
 `flag flag <flag-modifier> <disable>;`
 `}`
 `peer address; {`
 `disable;`
 `export [policy-name];`
 `import [policy-name];`
 `local-address address;`
 `traceoptions {`
 `file name <replace> <size size> <files number> <no-stamp>`
 `<(world-readable | no-world-readable)>;`
 `flag flag <flag-modifier> <disable>;`
 `}`
 `}`
`}`

Hierarchy Level [edit protocols msdp]

Description Define an MSDP peer group. MSDP peers within groups share common traceoptions, if present and not overridden for an individual peer with the peer statement. To configure multiple MSDP groups, include multiple group statements.

By default, the group's options are identical to the global MSDP options. To override the global options, include group-specific options within the group statement.

The group must contain at least one peer.

Options *group-name*—Name of the MSDP group.

The remaining statements are explained separately in this chapter.

Usage Guidelines See "Configure MSDP Groups" on page 174.

Required Privilege Level routing—To view this statement in the configuration.
 routing-control—To add this statement to the configuration.

import

Syntax	import [<i>policy-names</i>];
Hierarchy Level	[edit protocols msdp], [edit protocols msdp group <i>group-name</i>], [edit protocols msdp group <i>group-name</i> peer <i>address</i>], [edit protocols msdp peer <i>address</i>]
Description	Apply one or more policies to routes being imported into the routing table from MSDP.
Options	<i>policy-names</i> —Name of one or more policies.
Usage Guidelines	See “Configure MSDP Routing Policy” on page 176.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.
See Also	export on page 183

local-address

Syntax	local-address <i>address</i> ;
Hierarchy Level	[edit protocols msdp], [edit protocols msdp group <i>group-name</i>], [edit protocols msdp group <i>group-name</i> peer <i>address</i>], [edit protocols msdp peer <i>address</i>]
Description	Configure the local end of an MSDP session. You must configure at least one peer for MSDP to function. When configuring a peer, you must include this statement. This address is used to accept incoming connections to the peer and to establish connections to the remote peer.
Options	<i>address</i> —IP address of the local end of the connection.
Usage Guidelines	See “Minimum MSDP Configuration” on page 172.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

mode

Syntax mode <(mesh-group | standard)>;

Hierarchy Level [edit protocols msdp group *group-name*]

Description Configure groups of peers in a full mesh topology to limit excessive flooding of source-active messages to neighboring peers. The default flooding mode is standard.

Default If you do not include this statement, default flooding is applied.

Options mesh-group—(Optional) Group of peers that are mesh group members.

standard—Use standard MSDP source-active flooding rules.

Default: standard

Usage Guidelines See “Configure MSDP Mesh Groups” on page 174.

Required Privilege Level routing—To view this statement in the configuration.
routing-control—To add this statement to the configuration.

msdp

```

Syntax  msdp {
        disable;
        rib-group group-name;
        export [ policy-name ];
        import [ policy-name ];
        local-address address;
        traceoptions {
            file name <replace> <size size> <files number> <no-stamp>
              <(world-readable | no-world-readable)>;
            flag flag <flag-modifier> <disable>;
        }
        peer address {
            disable;
            export [ policy-name ];
            import [ policy-name ];
            local-address address;
            mode;
            traceoptions {
                file name <replace> <size size> <files number> <no-stamp>
                  <(world-readable | no-world-readable)>;
                flag flag <flag-modifier> <disable>;
            }
        }
        group group-name {
            disable;
            export [ policy-name ];
            import [ policy-name ];
            local-address address;
            traceoptions {
                file name <replace> <size size> <files number> <no-stamp>
                  <(world-readable | no-world-readable)>;
                flag flag <flag-modifier> <disable>;
            }
            peer address; {
                disable;
                export [ policy-name ];
                import [ policy-name ];
                local-address address;
                traceoptions {
                    file name <replace> <size size> <files number> <no-stamp>
                      <(world-readable | no-world-readable)>;
                    flag flag <flag-modifier> <disable>;
                }
            }
        }
    }
}

```

Hierarchy Level [edit protocols]

Description Enable MSDP on the router. You must also configure at least one peer for MSDP to function.

Default MSDP is disabled on the router.

Options The remaining statements are explained separately in this chapter.

Usage Guidelines See “Enable MSDP” on page 173.

Required Privilege Level routing—To view this statement in the configuration.
routing-control—To add this statement to the configuration.

peer

Syntax `peer address {
 disable;
 export [policy-name];
 import [policy-name];
 local-address address;
 traceoptions {
 file name <replace> <size size> <files number> <no-stamp>
 <(world-readable | no-world-readable)>;
 flag flag <flag-modifier> <disable>;
 }
}`

Hierarchy Level [edit protocols msdp],
[edit protocols msdp group *group-name*]

Description Define an MSDP peering relationship. An MSDP router must know which routers are its peers. You define the peer relationships explicitly by configuring the neighboring routers that are the MSDP peers of the local router. After peer relationships are established, the MSDP peers exchange messages to advertise active multicast sources. To configure multiple MSDP peers, include multiple peer statements.

By default, the peer’s options are identical to the global or group-level MSDP options. To override the global or group-level options, include peer-specific options within the peer statement.

At least one peer must be configured for MSDP to function. You must configure *address* and *local-address*.

Options *address*—Name of the MSDP peer.

The remaining optional statements are explained separately in this chapter.

Usage Guidelines See “Configure MSDP Peers” on page 173.

Required Privilege Level routing—To view this statement in the configuration.
routing-control—To add this statement to the configuration.

rib-group

Syntax	rib-group <i>group-name</i> ;
Hierarchy Level	[edit protocols msdp
Description	Associate a routing table group with MSDP.
Options	<i>group-name</i> —Name of the routing table group. The name must be one that you defined with the rib-groups statement at the [edit routing-options] hierarchy level.
Usage Guidelines	See “Enable MSDP” on page 173.
Required Privilege Level	routing—To view this statement in the configuration. routing-control—To add this statement to the configuration.

traceoptions

Syntax traceoptions {
 file *name* <replace> <size *size*> <files *number*> <no-stamp>
 <(world-readable | no-world-readable)>;
 flag *flag* <flag-modifier> <disable>;
 }

Hierarchy Level [edit protocols msdp],
 [edit protocols msdp group *group-name*],
 [edit protocols msdp group *group-name* peer *address*],
 [edit protocols msdp peer *address*]

Description Configure MSDP tracing options.

To specify more than one tracing operation, include multiple flag statements.

Default The default MSDP trace options are those inherited from the routing protocol's traceoptions statement included at the [edit routing-options] hierarchy level.

Options disable—(Optional) Disable the tracing operation. You can use this option to disable a single operation when you have defined a broad group of tracing operations, such as all.

file *name*—Name of the file to receive the output of the tracing operation. Enclose the name within quotation marks. All files are placed in the directory /var/log. We recommend that you place tracing output in the msdp-log file.

files *number*—(Optional) Maximum number of trace files. When a trace file named *trace-file* reaches its maximum size, it is renamed *trace-file.0*, then *trace-file.1*, and so on, until the maximum number of trace files is reached. Then the oldest trace file is overwritten.

If you specify a maximum number of files, you also must specify a maximum file size with the size option.

Range: 2 through 1000 files

Default: 2 files

flag *flag*—Tracing operation to perform. To specify more than one tracing operation, include multiple flag statements.

MSDP Tracing Flags

keepalive—Keepalive messages

packets—All MSDP packets

route—MSDP changes to the routing table

source-active—Source-active packets

source-active-request—Source-active request packets

source-active-response—Source-active response packets

Global Tracing Flags

all—All tracing operations

general—A combination of the normal and route trace operations

normal—All normal operations

Default: If you do not specify this option, only unusual or abnormal operations are traced.

policy—Policy operations and actions

route—Routing table changes

state—State transitions

task—Interface transactions and processing

timer—Timer usage

flag-modifier—(Optional) Modifier for the tracing flag. You can specify one or more of these modifiers:

detail—Detailed trace information

receive—Packets being received

send—Packets being transmitted

no-stamp—(Optional) Do not place timestamp information at the beginning of each line in the trace file.

Default: If you omit this option, timestamp information is placed at the beginning of each line of the tracing output.

no-world-readable—(Optional) Disallow any user to read the log file.

replace—(Optional) Replace an existing trace file if there is one.

Default: If you do not include this option, tracing output is appended to an existing trace file.

size *size*—(Optional) Maximum size of each trace file, in kilobytes (KB), megabytes (MB), or gigabytes (GB). When a trace file named *trace-file* reaches this size, it is renamed *trace-file.0*. When the *trace-file* again reaches its maximum size, *trace-file.0* is renamed *trace-file.1* and *trace-file* is renamed *trace-file.0*. This renaming scheme continues until the maximum number of trace files is reached. Then, the oldest trace file is overwritten.

If you specify a maximum file size, you must also specify a maximum number of trace files with the *files* option.

Syntax: *xk* to specify KB, *xm* to specify MB, or *xg* to specify GB

Range: 10 KB through the maximum file size supported on your system

Default: 1 MB

world-readable—(Optional) Allow any user to read the log file.

Usage Guidelines See “Trace MSDP Protocol Traffic” on page 179.

Required Privilege Level routing and trace—To view this statement in the configuration.
routing-control and trace-control—To add this statement to the configuration.